

**Patients with unexplained chest pain  
– Pain experience, stress, coping and health-related quality of life**

**Akademisk avhandling**

som för avläggande av filosofie doktorsexamen  
vid Sahlgrenska akademien vid Göteborgs universitet  
kommer att offentligen försvaras i hörsal 2119  
Institutionen för vårdvetenskap och hälsa  
fredagen den 19 oktober 2007 kl 13.00

av

**Margaretha Jerlock**

Fakultetsopponent:  
Professor Kurt Svärdsudd  
Uppsala universitet, Uppsala

This thesis is based on the following papers:

- I Jerlock, M., Gaston-Johansson, F. & Danielson, E. (2005). Living with unexplained chest pain. *Journal of Clinical Nursing*, 14(8), 956-964.
- II Jerlock, M., Welin, C., Rosengren, A. & Gaston-Johansson, F. (2007). Pain characteristics in patients with unexplained chest pain and patients with ischemic heart disease. *European Journal of Cardiovascular Nursing* 6(2), 130-136.
- III Jerlock, M., Gaston-Johansson, F., Kjellgren, K. I., & Welin, C. (2006). Coping strategies, stress, physical activity and sleep in patients with unexplained chest pain. *BMC Nursing*, 5, 7.
- IV Jerlock, M., Kjellgren, K. I., Gaston-Johansson, F., Lissner, L., Manhem, K., Rosengren, A., & Welin, C. Psychosocial profile in men and women with unexplained chest pain: A case-control study. (Submitted for publication)



**The Sahlgrenska Academy**  
AT GÖTEBORG UNIVERSITY  
Institute of Health and Care Sciences

# **Patients with unexplained chest pain**

## **– Pain experience, stress, coping and health-related quality of life**

Margaretha Jerlock  
Institute of Health and Care Sciences, The Sahlgrenska Academy  
at GÖTEBORG UNIVERSITY,  
Göteborg Sweden

### **ABSTRACT**

Chest pain is a common symptom that causes individuals to seek acute care at emergency departments; however, more than half of these patients are judged to have no organic cause to their pain. In Sweden, the number of patients discharged from hospital with a diagnosis of unexplained chest pain (UCP) has increased from 8,432 in 1987 to 17,555 in 2005. There are limited descriptions in the literature of the pain experience or of psychosocial factors which explain the development and maintenance of UCP. The overriding aim of this thesis was to provide a comprehensive assessment of UCP. Further aims were to determine psychosocial factors associated with UCP and how the chest pain experiences affect everyday life and health-related quality of life (HRQOL). The thesis consists of four studies: the first study describes patients' perceptions of their experiences of UCP; the second study describes the chest pain characteristics in patients with UCP versus ischemic heart disease (IHD); and the two following studies describe and explore UCP and its relationships to mental strain at work, stress at home, negative life events, sleep, coping and HRQOL. Both quantitative and qualitative methods were used. The studies were carried out at Sahlgrenska University Hospital/Östra in Göteborg, Sweden from December 2002 to September 2003.

The UCP patients explained that their pain gave rise to fear and anxiety, a feeling of uncertainty, stress and loss of strength, which to a great extent affected everyday life. They had difficulty managing activities such as household chores, socialising with friends, and taking part in recreational and sexual activity. Lacking medical explanations for their chest pain, the patients felt that they had no hope of being cured and thought they would have to live with it for the rest of their lives. The chest pain, assessed with a Pain-O-Meter, was described as pressing, stabbing, dull, worrying, troublesome and tiring. In comparison with patients with IHD, patients with UCP more frequently described their chest pain as dull, sore, annoying and troublesome. UCP patients perceived their condition as more painful than IHD patients and required more sensory and affective words to describe their pain. However, the UCP and IHD patients did not differ regarding the location of their pain.

In comparison with a random population sample, patients with UCP had impaired HRQOL with lower scores in all dimensions of the SF-36. Likewise, they were more often worried about stress at work, perceived more stress at home, more often had sleep problems and had experienced more negative life events than the controls. The patients used cognitive coping strategies in managing stress, but emotional reactions to stress seemed to increase the intensity of the chest pain. A larger proportion of the UCP patients was immigrant and had a sedentary lifestyle. Women with UCP had higher levels of cardiovascular risk factors.

Pain assessment and more extensive communication about how the pain affects everyday life are crucial for improved care. It is essential that ways be found to alleviate pain and to improve health and quality of life, as well as to promote physical activity and sleep.

**Keywords:** chest pain, coping, illness, life events, nursing, quality of life, sleep, stress symptom.